

A NEW ANT-NEST COCCID.

BY GEO. B. KING AND J. D. TINSLEY.

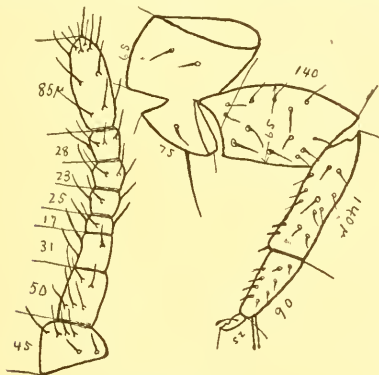
Dactylopius cockerelli, n. sp.—Adult ♀. Length $2\frac{1}{2}$ mm. Width $1\frac{1}{3}$ mm. Shape, ovoidal, quite plump. Color, reddish varying to brownish. Coated with white mealy secretion. With a hand lens the segments of the body are quite distinct. No lateral or caudal appendages. Boiled in caustic potash the insects do not stain the liquid. Shortly after boiling however the insect changes to a deep reddish brown color. Cleared and mounted, the skin is colorless,

large hairs. Mouth parts very small, rostral loop not reaching half way to base of middle legs. Legs quite stout, short and bristly; femur and tibia nearly equal in length, the femur being a little the longest, and quite stout, $140\ \mu$ long $65\ \mu$ wide. Tibia $120\ \mu$ long. Tarsus short, less than $\frac{1}{2}$ the length of tibia, $60\ \mu$ long. Claws stout and curved, $20\ \mu$ long. Tarsal digitules very fine and quite short. Claw digitules short, knobbed and quite indistinct. Anal ring with the usual 6 hairs. Caudal tubercles normal, each with a long hair ($\frac{1}{2}$ longer than those of the anal ring) and one much shorter hair; there are also a long conical spine and other short spines. The skin has a few scattering long hairs and conical spines more noticeable between the antennae and some more on the margin and numerous gland spots.

Habitat. Andover, Mass., Sept. 17, 1898, in nests of *Lasius flavus* L. under a flat stone. The coccids are concealed in a small snow white cottony ovisack, composed of a fluffy mass of cottony secretion 4 mm. long and $1\frac{1}{4}$ mm. wide. At the anal end of the sack are found the small oval bright pink eggs of the coccid. This is the 9th ant-nest coccid found in Massachusetts, and it should be stated here that *Dactylapina citri* Boisd. and *D.*

adonidum L. have also been found in ant nests in Mass.

This species is probably most nearly allied to *Dactylapinus kingii* Ckll. from which it differs in having the antennae and legs stouter; in *kingii* the 1st joint of the antennae is always longer than the 2d, while in this species the 2d is usually longer than the 1st although they may be subequal. The femur of *kingii* is considerably longer usu-



Dactylopius cockerelli.

Antenna and leg, $\times 200$.

Antennae, legs and mouth parts light yellow after mounting. Antennae 8 jointed, 8 longest and thicker than 5×6 or 7 and as long as those three joints together. 2 always longer than 1: three next longest, then 7 \times 5 and 6 with the 4 shortest. Formula 8213754. There is little difference between the joints from 4 to 7 except that 4 is distinctly shorter, joints 1×2 are nearly as long again as 6 and 7. All of the joints have numerous rather

ally 180-225 μ and being of about the same width 165 μ the femur appears more slender. The ovisac of *kingii* is also not so compact as in this species. The drawings are by Prof. Tinsley who is also responsible for the comparison with allied species.

SECOND NOTE ON A NEW HEMI- LEUCA.

Hemileuca sororia race *oliviae*, Ckll., Psyche, 1898, p. 252. ♂. (Sta. Fé. N. M.) On Aug. 20, 1898, Mr. John Davis sent me some larvae collected at Maxwell City, N. M., stating that they were then extremely numerous, and were devouring the pastures. With the larvae were sent pieces of grass, which Prof. E. O. Wootton identifies as a *Muhlenbergia* probably *M. texana* Thurb. (*porteri* Scrib.). From these larvae I bred four moths of *oliviae*, which was only known heretofore by a single ♂! A male emerged Sept. 13, two males Sept. 14 and a female Sept. 15.

Larva. Of the living larva, I noted as follows:—Ochreous with a very dark brown head; body irregularly marbled with very dark brown, especially about the sutures; tufts of spines as usual in the genus, the central ones black, the lateral ones (*spinules*) ochreous with black tips; thoracic legs black.

The skin is sparsely beset with colorless hairs. Spiracles narrowly edged with black.

Cocoon. The cocoon is composed mainly of fragments of the *Muhlenbergia* loosely woven, with many open spaces.

Imago. The males agree in the main with the Santa Fé type, but are perhaps, a little grayer. The female expands 65 mm., and has a warmer, more rosy color than the males. The general color of the anterior wings is nearly uniform, with the two pale bands distinct.

Compared with the description of *H. sororia* Hy. Edw., the ♀ *oliviae* differs thus:—Costa of primaries orange-ferruginous

throughout; secondaries above with the nervures pale ferruginous; on the under side the nervures are pale ferruginous on all the wings, and the costa of the primaries is broadly orange ferruginous, subfuscous at base, that of the secondaries washed with blackish; head clothed with dark fuscous hair, gray on vertex and occiput; thorax with dense long gray hairs; antennae entirely bright orange; abdomen above with fuscous hair, chestnut on the first two segments; hind margins of third to fifth segments with red hair, which is replaced by white on the extreme sides, and beneath except in the middle; apex with mixed fuscous, white and red hair. The expanse is 11 mm. less than that of *sororia*.

H. oliviae is of about the same size as *H. sororia hualapai* (Neumoegen), from S. W. Arizona, but differs in the markings. The three forms, *sororia*, *hualapai* and *oliviae* are clearly geographical races of a single well marked species.

In the Mesilla Valley, N. M., I have never taken *H. oliviae*, but only *H. maia* race *artemis* (Pack) and *H. juno* Pack., the former being much the most frequent.

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N. M. Agr. Exp. Sta.

A CURIOUS COCOON OF ATTACUS CECROPIA. — In September last I found a very large larva of *Cecropia* feeding on willow in a swampy place. I took it home and it began its cocoon the next day, in a white paper box, from which I removed all leaves. The cocoon was glistening white at first, and in this state was packed with white cotton for transportation from Vermont to Brookline. The box was unopened for a month, and when the cocoon was taken out it was nearly all green, the small spaces not green being just off white. The pupa seems to be in good condition and is evidently alive.

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Brookline, Oct. 15.